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Attn: Shafiqul Haq

IN THE INTERNATIONAL BUREAU OF WIPO-UNDER THE PATENT COOPERATION TREATY

Applicants

MERCK & CO., INC.

International Application No.

PCT/US2005/001469

International Filing Date

January 14, 2005 (14.01.2005)

Title of the Invention

NPC1L1 (NPC3) AND METHODS OF IDENTIFYING LIGANDS THEREOF

STATEMENT UNDER ARTICLE 19(1)

The International Bureau of WIPO 34, chemin des Colombettes

1211 Geneva 20 SWITZERLAND

Dear Sir or Madam:

One or more claims as filed are being amended as follows:

Applicant has amended Claims 6, 9, 10 and 20 to include structures for Formulas I and II and compound 2. Support for this amendment can be found at pages 32, line 20, page 33, line 7 and page 83, line 1.

The foregoing amendments do not go beyond the disclosure as originally filed.

Respectfully submitted,

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Date: May 12, 2006

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CLAIMS

1. A method for identifying a ligand of NPC1L1 comprising:

contacting human NPC1L1 with a detectably labeled substituted 2-azetidinone glucuronide and a candidate compound; and

determining whether said candidate compound binds to human NPC1L1; wherein binding of said candidate compound to human NPC1L1 modulates binding of said detectably labeled substituted 2-azetidinone glucuronide to human NPC1L1, wherein the detectably labeled substituted 2-azetidinone glucuronide has a binding affinity K_D value for human NPC1L1 that is 200nM or lower, and wherein said modulation indicates that the candidate compound is a ligand that binds to human NPC1L1.

- 2. The method of claim 1, wherein the K_D value is 100nM or lower.
- 3. The method of claim 1, wherein the K_D value is 50nM or lower.
- 4. The method of claim 1, wherein the K_D value is 20nM or lower.
- 5. The method of claim 1, wherein the K_D value is 10nM or lower.
- 6. The method of claim 1, wherein the substituted 2-azetidinone-glucuronide is selected from the group consisting of a compound of Formula I and a compound of Formula II.

$$Ar^{1} - (X)_{m} - (C)_{q} - (C)_{r} - (Z)_{p}$$

$$R^{1} - R^{3}$$

$$(II)$$

- 7. The method of claim 6, wherein the substituted 2-azetidinone-glucuronide comprises a detectable label from the group consisting of ³⁵S and ¹²⁵I.
 - 8. The method of claim 7, wherein the detectable label is ³⁵S.
- 9. The method of claim 6, wherein the substituted 2-azetidinone-glucuronide is a compound of Formula II,

$$Ar^{1} - (X)_{m} - (C)_{q} - (C)_{r} - (Z)_{p}$$

$$Q = (II)$$

wherein R⁹ comprises an -SO₂- group.

10. The method of claim 9, wherein the substituted 2-azetidinone-glucuronide of Formula II

$$Ar^{1} - (X)_{m} - (C)_{q} - (C)_{r} - (Z)_{p}$$

$$R^{1} - R^{3}$$

$$(II)$$

is labeled with ³⁵S.

11. A method for identifying a ligand of NPC1L1 comprising:

contacting human NPC1L1 with a detectably labeled substituted 2-azetidinone glucuronide of Formula II and a candidate compound; and

determining whether said candidate compound binds to human NPC1L1; wherein binding of said candidate compound to human NPC1L1 modulates binding of said detectably labeled substituted 2-azetidinone glucuronide of Formula II to human NPC1L1, and wherein said modulation indicates that the candidate compound is a ligand that binds to human NPC1L1.

- 12. The method of claim 11, wherein R⁹ of the detectably labeled substituted 2-azetidinone glucuronide of Formula II comprises an -SO₂- group.
- 13. The method of claim 11, wherein the detectably labeled substituted 2-azetidinone glucuronide of Formula II is labeled with ³⁵S.
- 14. The method of claim 11, wherein the detectably labeled substituted 2-azetidinone glucuronide of Formula II has a binding affinity K_D value for human NPC1L1 that is 200nM or lower.
 - 15. The method of claim 14, wherein the K_D value is 100nM or lower.
 - 16. The method of claim 14, wherein the K_D value is 50nM or lower.

- 17. The method of claim 14, wherein the K_D value is 20nM or lower.
- 18. The method of claim 14, wherein the K_D value is 10nM or lower.
- 19. The method of claim 1 wherein the detectably labeled substituted 2-azetidinone glucuronide is labeled with ³⁵S.
- 20. The method of claim 1 wherein the detectably labeled substituted 2-azetidinone glucuronide is 35 S-labeled compound $\underline{2}$